

## **MEMORANDUM**

**SUBJECT:** The 1999 Scientific and Technological Achievement Awards (STAA) Program

**FROM:** Norine E. Noonan  
Assistant Administrator (8101R)

**TO:** Assistant Administrators  
Associate Administrators  
Regional Administrators

I am pleased to issue this year's call for nominations for the 1999 Scientific and Technological Achievement Awards (STAA). STAA is an Agency-wide Competition, judged by the Science Advisory Board (SAB), recognizing outstanding published scientific and technical papers by the Agency's staff. Upon the recommendation of the SAB, award categories have been added and some existing categories expanded to include papers that are more closely related to the work of EPA's non-ORD Program and Regional Offices.

Attached are (1) nomination procedures and guidelines, (2) program schedules, (3) nomination forms, and (4) a checklist. Official 1999 nomination forms are available for your convenience in Portable Document Form (PDF) on NCERQA's Web Site [[www.epa.gov/ncerqa](http://www.epa.gov/ncerqa)]. Select "Announcement" on the side bar and proceed. Nomination packages should be sent to Dr. Richard Nalesnik, Peer Review Division, National Center for Environmental Research and Quality Assurance [NCERQA], (8725R). All packages must be received no later than COB October 29, 1999. Should questions arise, please contact Dr. Nalesnik at 202-564-6889.

Attachments

cc: EPA Science Advisory Board  
ORD Center Directors  
ORD Laboratory Directors

## SCIENTIFIC AND TECHNOLOGICAL ACHIEVEMENT AWARDS

### 1999 NOMINATION PROCEDURES AND GUIDELINES

#### I. PROGRAM OVERVIEW

The Scientific and Technological Achievement Awards (STAA) program promotes and recognizes scientific and technological achievements by EPA employees and fosters a greater exposure of EPA research to the public.

The STAA program began in 1980 and is sponsored by the Office of Research and Development (ORD). ORD manages the STAA program and provides administrative oversight. EPA's Science Advisory Board (SAB) provides scientific and technological evaluation.

While this program is sponsored by ORD and has considerable ORD participation the intent is to make this competition available Agency-wide.

#### II. AWARD CATEGORIES

Nominations may be submitted in eleven categories.

1. Control Systems and Technology (CS)

This category includes research on the development, testing and deployment of treatment and disposal systems and on the adaptation of existing systems to new uses. The research may include the development of prototypes, model systems, operations and maintenance equipment, pilot systems, or performance evaluations which have been properly peer reviewed and published.

2. Ecology, Ecosystem Risk Assessment & Ecosystem Protection (EC) (Including Reduction of Uncertainty and Landscape Scale Changes)

This category includes a broad range of research ranging from interaction of organisms with their environment through ecosystem risk assessment to research on ecosystem protection and restoration. It includes descriptive, experimental and theoretical research. Attention is directed to the inclusion of research that addresses assessments of landscape scale changes and related work.

3. Health Effects, Health Risk Assessment (HE) (Including the Reduction of Uncertainty)

This category includes research on human health effects, epidemiology, human behavior, studies used for human health risk estimation and studies for doing and improving human health risk assessment.

4. Monitoring and Measurement Methods (MM)

This category includes research on the development of measurement techniques and the design and analysis of monitoring programs.

5. Transport and Fate (TF)

This category includes research on the mechanisms and moderators of the movement of chemicals within and among environmental media, their transformations, and storage in the environment by chemical, physical, and biological processes. The research may include laboratory or field research and models.

6. Review Articles (RA)

A review article may be in any disciplinary area. Review articles should include a synthesis and a critical analysis of previous work that lead to a better understanding or provide new insight in a particular discipline.

7. Risk Management and Policy Formulation (RM)

This category consists of research that evaluates policy initiatives in ways that develop analysis and information to integrate science, engineering, and social science (especially economics) in support of environmental policy and regulatory decisions (e.g., standards). That is research that would be useful for regulatory impact analysis. Research in these areas relates directly to EPA's mission of environmental regulation and protection. Specifically this research includes environmental economics and technical support for regulatory impact analysis. The research may include investigations of how people develop a sense of values for various environmental characteristics. Journals such as Risk Analysis, Journal of Environmental Economics and Management, and Journal of Policy Analysis and Management are typical places for publishing this kind of research.

8. Integrated Risk Assessment (IR)

This category covers research (observation, experimental and theoretical) directed towards the goal of integrated human health and ecological risk assessment methods i.e., a comprehensive multimedia risk assessment methodology.

9. Social Science Research (SS)

This category covers social science research pertaining to EPA's policy formulation and regulatory and enforcement responsibilities. It specifically includes research on risk, risk communication, and risk perception and its drivers.

10. Environmental Education (EE)

This category covers research pertaining to environmental education. Such research ranges from educating the general public to education of students at all levels, i.e., K-12 and higher and adult education.

11. Environmental Trends for Drivers of Future Risk (ET)

This category specifically includes as important drivers of future risk demographics, energy, consumerism and technology.

### III. AWARD LEVELS

Three levels of awards are available within each research category. The final award amount for each level is determined by ORD based on available funds.

€ Level I \$5,000

€ Level II \$2,500

€ Level III \$1,000

**Level I** awards are for nominees who have accomplished an exceptionally high-quality research or technological effort. The nomination should recognize the initiation or general revision of a scientific or technological principle or procedure, or a highly significant improvement in the value of a device, activity, program, or service to the public. It must be at least of national significance or have a high impact on a broad area of science/technology. The nomination must be of far reaching consequences and recognizable as a major scientific/technological achievement within its discipline or field of study.

**Level II** awards are for nominees who have accomplished a notably excellent research or technological effort that has qualities and values similar to, but to a lesser degree, than those described under Level I. It must have timely consequences and contribute as an important scientific/technological achievement within its discipline or field of study.

**Level III** awards are for nominees who have accomplished an unusually notable research or development effort. The nomination can be for a substantial revision or modification of a scientific/technological principle or procedure, or an important improvement to the value of a device, activity, program, or service to the public. It must relate to a mission or organizational component of EPA, or significantly affect a relevant area of science/technology.

All awards are distributed based on the nominees' designated percentage of contribution. Any number of coauthors may share a single award. For example, if there are two eligible EPA authors (eligible to receive monetary awards) and two ineligible authors (ineligible to receive monetary awards) who each contributed 25% on a \$2,500 award, the two eligible authors will each receive 25% of \$2,500, or \$625, in award money.

If an author's monetary award is calculated to be less than \$500, then he/she automatically is awarded \$500. For example, if an author contributes 30% to a nomination that is awarded a Level III award, that author would normally have received \$300 ( $.30 \times \$1,000 = \$300$ ). Because the amount is less than \$500, the author will automatically receive \$500.

**Note:** If an eligible EPA author **has previously received a monetary award** for the research that led to the published paper or **previously received a monetary award** for the nominated publication, then the author becomes **ineligible** to receive the monetary award for that publication. However, they are still eligible to receive non-monetary recognition associated with the award.

#### IV. CRITERIA FOR ELIGIBILITY

All nominations must meet the following criteria:

- C The nominated publication(s) must have been published in a high-quality **peer reviewed journal**, or (for reviews articles) in a suitable book. Although a paper should stand on its own merits, work should be published in journals that are relevant to the field of work. Publishing sound scientific work in an inappropriate or second-rate journal weakens the nomination. In addition, peer review of conference or workshop proceedings or chapters in books is often considered less rigorous than the peer review process used by first-rate journals.
- C An EPA employee or a PHS employee working at EPA must be the principal author on the publication. If the EPA or PHS employee is not the first author, then a separate justification must be submitted that explains why an EPA or PHS author is in fact the principal author.

- C An eligible author is an EPA employee or a Public Health Service (PHS) employee assigned to EPA when the relevant research was conducted. PHS employees working at EPA are considered eligible employees, but they may not receive monetary awards.
- C The eligible author(s) must have contributed collectively a minimum of 30% toward the publication(s).
- C If an author was employed by EPA at the time the research was completed, the author is eligible for a share of the prize even though he/she may not be currently employed by EPA.
- C Contractors, grantees and their employees, as well as all other persons NOT directly employed by EPA, are not eligible for monetary awards through this program.
- C The research, as presented in the published paper, must have been completed within the five years preceding the 1999 award year, i.e., since January 1994.
- C The nominated paper must have been published within three years prior to the 1999 award program, i.e., after January 1996.
- C Papers nominated in any earlier competition are ineligible.
- C The nomination should identify any related research published previously by the principal authors.
- C The nomination should include any STAA or monetary award received.
- C Nominations should include all papers in a series, providing they are within the time limit.

## **V. REQUIRED APPROVALS**

Nomination packages may be initiated and prepared by any EPA scientist or engineer at any organizational level, including the publication author(s). But, an author cannot serve as a Nominating Official or an Approving Official for their own paper.

Within ORD, the Nominating Official must be the Division Director and the Approving Official must be the Laboratory or Center Director. If the Division Director is an author, the Laboratory or Center Director must be the Nominating Official and the Approving Official is the Assistant Administrator. If the nomination is from an ORD headquarters office, the Nominating Official must be the Office Director and the Approving Official is the Assistant Administrator. If the Office Director is an author, the Nominating and Approving Official must be the Assistant Administrator.

Outside of ORD, the Nominating Official must be at the Division Director level or equivalent and the Approving Official must be at the Office Director level or equivalent. If the Division Director or Office Director is an author, then the office must select appropriate Nominating and Approving Officials.

## VI. NOMINATION PROCEDURES

The following procedures must be followed to accurately and completely prepare and submit a STAA nomination package.

1. After the call letter is issued by the Assistant Administrator for Research and Development (AA/ORD), any EPA employee may initiate the preparation of the nomination package. The nomination package consists of the items listed below. The details for completion of each item are included later in the procedures.
  - Nomination form
  - Publication(s)
  - Supplemental Items (if applicable)
2. The nomination form must be filled-in completely and accurately. Directions are included with the nomination form. The original nomination form and twenty-five (25) copies must have the signatures of both the Nominating Official and the Approving Official.
3. The justification questions provide a brief outline of why the achievement deserves recognition. Justification answers should not summarize the paper. Substantial evidence should be shown for the following:
  - a statement of scientific merit of the nominated paper.
  - a statement of the importance of the generic application potential of the research.
4. An EPA employee or PHS employee working at EPA must be the first or principal author of the publication. A separate justification must be submitted that explains why an EPA or PHS author, who is the principal author, is not the first author on the publication.
5. **Twenty-five copies of the publication(s)** must be attached to the twenty-five (25) copies of the nomination form. Multiple paper nominations should be indicated on the nomination form and all papers attached in the nomination packages. Publications and

supplemental items cannot be returned.

6. **Supplemental material** may be included with the nomination package. There should be no more than four supplemental items. Supplemental items may include the following:

- patent documents;
- other publications relating to the nominated paper's achievement;
- other papers published from the series not part of the nominations;
- selected excerpts or abstracts from other sources relevant to the achievement

Supplemental items are not evaluated, but provide the reviewers with background information and perspective.

7. **The original and twenty-five (25)** copies of the nomination package, including 25 copies of the publication, must be submitted to NCERQA along with a brief cover memorandum transmitting the nomination. The cover memorandum should be signed by the Approving Official.

**The original and twenty-five (25) copies**, with the cover memorandum, are submitted to:

U.S. Environmental Protection Agency  
National Center for Environmental Research  
and Quality Assurance (8725R)  
ATTN: Dr. Richard Nalesnik, Peer Review Division  
1300 Pennsylvania Avenue, NW  
Washington, DC 20004

8. All material is due to NCERQA by COB October 29, 1999. Due to the extensive processing requirements, no extensions will be permitted. If incomplete packages are received, they will be returned to the contact person. Returned material may be resubmitted, however, NCERQA is not responsible for incomplete packages that are submitted or returned too late to be included in the current year's program.

## **VII. EVALUATION GUIDELINES**

The nomination packages are received by the National Center for Environmental Research and Quality Assurance (NCERQA), Peer Review Division (PRD ) in ORD, and are administratively reviewed prior to submission to the SAB. NCERQA will verify for



completeness the items included on the nomination packages checklist. If the packages do not conform to the guidelines, the packages will be returned to the contact person for corrections.

After the nomination packages are screened for completeness by NCERQA, the packages are forwarded to the SAB. The SAB convenes a subcommittee to review the nominations. Each year, the subcommittee members are selected based on their expertise in the categories of science and technology addressed by the nominated publications. When necessary, the subcommittee obtains additional reviews from experts to ensure the credibility of the review process. The SAB reviews the nomination packages according to the following factors:

- The extent to which the work reported in the nominated paper resulted in either new or significantly revised knowledge. The accomplishment should represent an important advancement of scientific knowledge or technology relevant to environmental issues.
- The degree to which the accomplishment is a product of the originality, creativeness, initiative, and problem-solving ability of the researchers, as well as the level of effort required to produce the results.
- The extent to which environmental protection has been strengthened or improved, whether of local, national, or international importance.
- The extent of the beneficial impact of the accomplishment and the degree to which the accomplishment has been favorably recognized from outside EPA.
- The extent to which the accomplishment has improved an EPA mission, function, program, product, activity, or service.
- The nature and extent of peer review, including stature and quality of the peer-reviewed journal, or the publisher of a book for review chapter published therein.

**NOTE:** Nominations that are submitted in more than one category or in the wrong category, will not be disqualified. Nominations that have been incorrectly categorized will be placed in the appropriate category by the SAB.

**STAA PROGRAM SCHEDULE**

July , 1998	NCERQA distributes the call letter announcing the 1999 STAA program
Oct. 29, 1999	All nominations must be received by NCERQA
Nov. 26, 1999	Contractor Screens & Processes All Nominations
Jan. 7, 2000	All Qualified Nominations Transmitted to SAB
April 16, 2000	SAB Delivers Recommendations to NCERQA

# CHECKLIST

## 1999 Scientific and Technological Achievement Awards

Control Code	Title:
Office Awards Coordinator:	
Signature:	
Telephone Number:	
INSTRUCTIONS: All nominations submitted must contain the applicable elements outlined in the guidelines. This checklist has been prepared to assist in ensuring that the nomination is complete prior to submission.	
Are there 25 complete copies of the nomination package including... <ol style="list-style-type: none"> <li>1. Nomination Form?</li> <li>2. Publication(s)?</li> <li>3. Supplemental Items? (if applicable)</li> </ol>	
Is the 'GENERAL INFORMATION' section complete including... <ol style="list-style-type: none"> <li>1. Award Category?</li> <li>2. Laboratory/Office Address? (name, street, city, state, zip code)</li> <li>3. Laboratory/Office Contact? (name and telephone number)</li> <li>4. Office Award Coordinator? (name and telephone number)</li> </ol>	
Is each 'NOMINATION INFORMATION' section complete including... <ol style="list-style-type: none"> <li>1. Multiple Papers Question?</li> <li>2. Titles of each nominated publication?</li> <li>3. First initial and last name(s) of contributing authors?</li> <li>4. Supplemental Items question?</li> </ol>	
Is the 'ELIGIBILITY INFORMATION' section complete including... <ol style="list-style-type: none"> <li>1. Previous Submission question?</li> <li>2. Previous Monetary Award question?</li> <li>3. Sequel Submission question?</li> <li>4. Research completion question?</li> <li>5. Publication date question?</li> <li>6. Eligible Author/EPA employee question?</li> <li>7. First Author/EPA employee question?</li> </ol>	
Is the 'NOMINATING OFFICIAL' section complete including... <ol style="list-style-type: none"> <li>1. Name?</li> <li>2. Title?</li> <li>3. Signature and date?</li> <li>4. Telephone number?</li> </ol>	
Is the Nominating Official a Laboratory Director, an Office Director or a Division Director?	

<p>Is the 'APPROVING OFFICIAL' section complete including...</p> <ol style="list-style-type: none"> <li>1. Name?</li> <li>2. Title?</li> <li>3. Signature and date?</li> <li>4. Telephone number?</li> </ol>
<p>Is the Approving Official an Office Director or above?</p>
<p>Is there an author information section completed for <i>each</i> contributing author?</p>
<p>Is each 'ELIGIBLE AUTHOR' section complete including...</p> <ol style="list-style-type: none"> <li>1. Name? (Including Mr., Ms., Dr.)</li> <li>2. Percent of Total Effort?</li> <li>3. Professional Title? Series, Grade, and Step?</li> <li>4. Social Security Number?</li> <li>5. Timekeeper Number?</li> <li>6. Current Mailing Address? (Including Mail Code/Address)</li> <li>7. Designated Agent Name/Telephone Number?</li> <li>8. Separation Date? (If no longer an EPA or PHS employee)</li> </ol>
<p>Is each 'INELIGIBLE AUTHOR' section complete including...</p> <ol style="list-style-type: none"> <li>1. Name? (Including Mr., Ms., Dr.)</li> <li>2. Percent of Total Effort?</li> <li>3. Current mailing address?</li> </ol>
<p>Does the total percent of effort for <i>all</i> authors add up to 100%</p>
<p>Is each 'NOMINATED PAPERS' section complete including...</p> <ol style="list-style-type: none"> <li>1. Paper Title?</li> <li>2. Journal?</li> <li>3. Volume?</li> <li>4. Number?</li> <li>5. Publication Date?</li> <li>6. Pages?</li> <li>7. Contributing Authors? (First initial and last name)</li> </ol>
<p>Are all supplemental items listed in the 'SUPPLEMENTAL ITEMS' section? (No more than four items)</p>
<p>Are each of the 'JUSTIFICATION' questions answered including...</p> <ol style="list-style-type: none"> <li>1. Appraisal of nominee(s)' accomplishments?</li> <li>2. Merits of the nomination?</li> <li>3. Significance or impact of the research?</li> <li>4. Relevance of scientific contribution</li> <li>5. Originality, creativity?</li> <li>6. Extent of environmental protection</li> <li>7. Evidence of recognition from outside EPA?</li> <li>8. Explanation of the nature of the peer review?</li> </ol>
<p>Is an 'AWARD CITATION' included and limited to 120 characters?</p>